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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,499	07/09/2003	Fred A. Brown	917/A01	1760

2101 7590 04/24/2006
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EXAMINER

DWIVEDI, VIKANSHA S

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/616,499		BROWN, FRED A.	
	Examiner		Art Unit	
	Vikansha S. Dwivedi		3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/8/04 and 7/9/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

Applicant Information Disclosure Statement submitted on 3/8/2004 and 7/9/2003 are acknowledged. Since the submission complies with 37CFR 1.97 and 1.98 the references listed therein have been considered. An initialed and dated copy of Applicant's IDS forms is attached to the instant Office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirao et al. (U.S. Patent number 6,709,111) in view of Flory IV (U.S. Patent number 6,388,392) and further in view of Hardy (U.S. Patent number 4,618,803)

Hirao et. al. teaches a fan controller for controlling the rotation of a rotor having a fan blade (5), rotation of the rotor being controlled by rotor circuitry (Shown in Figure 1), the fan controller comprising: an input for receiving an input voltage, the rotor circuitry being energizable by the input voltage; Hirao does not disclose capacitive storage in electrical communication with both the rotor circuitry and the input, the capacitive

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of charging by receiving current from the input; and a current limiting element coupled between the input and the capacitive storage, the current limiting element at least in part controlling current flow from the input to the capacitive storage. Flory IV discloses an energy storage apparatus to ensure continued power supply during operation without interruptions. Flory IV discloses a capacitive storage (48) capable of charging by receiving current from the input (18) and a current limiting element (62) coupled between the input and the capacitive storage (As shown in Figure 7 and 8), the current limiting element at least in part controlling current flow from the input to the capacitive storage; wherein the current limiting element is configured to control current flow from the input to the capacitive storage at least in part as a function of the amount of current required to be drawn by the circuitry; wherein the capacitive storage includes a plurality of series capacitors (Comprises of several capacitors 54a, 54b, 54c and 54d connected in a series circuit 56 as shown in Figure 4); wherein the current limiting element is configured to ensure that the circuitry has sufficient current to operate when the storage element is storing power; wherein the current limiting element is configured to ensure that the operation begins substantially immediately after start-up. Flory IV discloses continued operation that indicated that the operation begins within one second after start-up. According to Flory, the current limiting element is not coupled between the input and the control circuitry (Figure 2); wherein the current limiting element isolates the control circuitry from the storage element. Hardy discloses a current limited charge circuit wherein the current limiting element is a PTC.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cooling fan controller disclosed by Hirao in view of Flory IV and Hardy for the purpose of providing a continuous energy storage without interrupting the power supply to the motor and to provide a simple and economical way to control current flow of a charging circuit to avoid high current drains in energy storage by using PTC.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikansha S. Dwivedi whose telephone number is 571-272-7834. The examiner can normally be reached on M-F, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VSD


TAE JUN KIM
PRIMARY EXAMINER